

What is claimed is:

1. A lens comprising a first major surface and a second major surface, wherein the first major surface is rotationally symmetrical about a first axis, and further wherein the first major surface comprises a first lens centration mark located at the intersection of the first major surface and the first axis.
5
2. The lens of claim 1, wherein the first lens centration mark comprises a diameter of no more than 50 μm .
10
3. The lens of claim 1, wherein the lens further comprises a polymeric material.
15
4. The lens of claim 1, wherein the first major surface of the lens comprises a spherical shape.
5
5. The lens of claim 1, wherein the first major surface of the lens comprises an aspherical shape.
20
6. The lens of claim 5, wherein the second major surface of the lens comprises an aspherical shape.
7. The lens of claim 1, wherein the second major surface of the lens comprises a planar shape.
25
8. The lens of claim 1, wherein the second major surface of the lens is rotationally symmetrical about a second axis, and further wherein the second major surface of the lens comprises a second lens centration mark located at the intersection of the second major surface and the second axis.

9. The lens of claim 8, wherein the lens further comprises a mechanical axis, and further wherein the first lens centration mark is aligned with the mechanical axis.

10. The lens of claim 9, wherein the second lens centration mark is aligned with the
5 mechanical axis.

11. A method of forming a lens centration mark on at least one surface of a lens, the method comprising:

10 forming a first mold centration mark on a first surface of a lens mold, wherein the first surface is rotationally symmetrical about a first lens mold axis, wherein the first mold centration mark is formed at the intersection of the first lens mold axis and the first surface of the lens mold;

15 filling the lens mold with a curable material; and curing the material such that the first mold centration mark forms a first lens centration mark on a first major surface of the lens.

12. The method of claim 11, wherein the first lens centration mark comprises a diameter of no more than 50 μm .

20 13. The method of claim 11, wherein the curable material comprises a polymeric material.

14. The method of claim 11, further comprising forming a second mold centration mark on a second surface of the lens mold, wherein the second surface is rotationally
25 symmetrical about a second lens mold axis, and further wherein the second mold centration mark is formed at the intersection of the second lens mold axis and the second surface of the lens mold, wherein curing the material further comprises curing the material such that the second mold centration mark forms a second lens centration mark on a second major surface of the lens.

15. The method of claim 11, wherein forming the first mold centration mark comprises embossing the first mold centration mark on the first surface of the lens mold.

5

16. The method of claim 11, wherein forming the first mold centration mark comprises engraving the first mold centration mark on the first surface of the lens mold.

10 17. The method of claim 16, wherein engraving the first mold centration mark comprises:

placing the lens mold on a rotating surface; and

contacting the first surface of the lens mold with an engraving tool such that the first mold centration mark is formed on the first surface of the lens mold.

15 18. A method of measuring centration of a lens, the method comprising:

placing the lens on a platen, wherein the lens comprises a first major surface and a second major surface, wherein the first major surface is rotationally symmetrical about a first axis, and further wherein the first major surface comprises a first lens centration mark located at the intersection of the first major surface and the first axis, wherein

20 placing the lens on the platen comprises placing the lens on the platen such that the first lens centration mark is aligned with a rotation axis of the platen;

leveling the lens relative to a plane of rotation that is orthogonal to the rotation axis of the platen;

rotating the lens about the rotation axis of the platen; and

25 observing the lens during or after rotation to assess centration of the first major surface of the lens.

19. The method of claim 18, wherein assessing centration of the first major surface of the lens comprises:

measuring a maximum distance from a reference point to an outer edge of the lens as the lens rotates;

measuring a minimum distance from the reference point to the outer edge of the lens as the platen and lens rotate; and

5 comparing the minimum distance and the maximum distance.

20. The method of claim 18, wherein the method further comprises:

repositioning the lens on the platen such that a second lens centration mark on a second major surface of the lens is aligned with the rotation axis of the platen, wherein
10 the second major surface of the lens is rotationally symmetrical about a second axis, wherein the second lens centration mark is located at the intersection of the second major surface and the second axis;

rotating the lens about the rotation axis of the platen; and

15 observing the lens during or after rotation to assess centration of the second major surface of the lens.

21. The method of claim 20, wherein assessing centration of the second major surface of the lens comprises:

20 measuring a second maximum distance from the reference point to the outer edge of the lens as the lens rotates;

measuring a second minimum distance from the reference point to the outer edge of the lens as the lens rotates; and

comparing the second minimum distance and the second maximum distance.

25. 22. A method of measuring centration of a lens, the method comprising:

placing the lens on a platen in a first lens position, wherein the lens comprises a first major surface and a second major surface, wherein the first major surface is rotationally symmetrical about a first axis, and further wherein the first major surface

comprises a first lens centration mark located at the intersection of the first major surface and the first axis;

determining a first location of the first lens centration mark when the lens is in the first lens position;

5 positioning the lens in a second lens position;

determining a second location of the first lens centration mark when the lens is in the second lens position; and

comparing the first location of the first lens centration mark and the second location of the first lens centration mark.

10

23. The method of claim 22, wherein comparing the first location of the first lens centration mark and the second location of the first lens centration mark comprises measuring the distance between the first location of the first lens centration mark and the second location of the first lens centration mark.

15

24. The method of claim 22, wherein the method further comprises:

determining a first location of a second lens centration mark on a second major surface of the lens when the lens is in the first lens position, wherein the second major surface of the lens is rotationally symmetrical about a second axis, and further wherein the second lens centration mark is located at the intersection of the second major surface and the second axis;

positioning the lens in the second lens position;

determining a second location of the second lens centration mark when the lens is in the second lens position; and

25

comparing the first location of the second lens centration mark and the second location of the second lens centration mark.

25. The method of claim 24, wherein comparing the first location of the second lens centration mark and the second location of the second lens centration mark comprises

measuring the distance between the first location of the second lens centration mark and the second location of the second lens centration mark.